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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,007	10/12/2005	Hideo Fujikake	MI/244	7852
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Allan M Wheatcraft W L Gore & ASSOCIATES INC 551 Paper Mill Road Post Office Box 9206 Neward, DE 19714-9206			EXAMINER WILLIAMS, AARON	
			ART UNIT 4135	PAPER NUMBER
			MAIL DATE 05/13/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/530,007

**Applicant(s)**

FUJIKAKE ET AL.

**Examiner**

Aaron Williams

**Art Unit**

4135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10/12/2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 8/2/2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Objections*

2. Claims 1 and 3 are objected to because of the following informalities: the phrase "**comprising a transparent, fluorine-containing resin**" should be restated as --  
**comprising a transparent fluorine-containing resin--**. Appropriate correction is required.
- 3.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2 rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,369,871 to Hanada et al (IDS).

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Regarding claim 1 Hanada discloses in at least figure 1 and 2, **a transparent electroconductive film, comprising a laminate having a three-layered structure comprising a transparent fluorine-containing resin film (31, S) having at least one face and a transparent gas barrier layer (35, X) disposed on said at least one face to form a transparent electroconductive layer (27, E).** Refer to column 2 lines 37 – 52 for further details.

Regarding claim 2 Hanada discloses in at least figure 1 and 2, **the transparent electroconductive film according to claim 1, further comprising a surface treatment (29, U) for enhancing adhesion on said at least one face of said transparent, fluorine-containing resin film (31, S).** Refer to column 2 lines 37 – 52 for further details.

6. Claims 3 – 5, 9, 10 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US 2003/0156080 to Koike et al..

Regarding claim 3 Koike discloses in at least figure 1 and 2, **a transparent electroconductive film, comprising a laminate having a three-layered structure comprising a transparent fluorine-containing resin film (B refer to page 6 paragraph [0109] where layer B is made of fluorine type resin) having a first face and a second face, a transparent gas barrier (A refer to page 18 paragraph [0254] where layer A has gas barrier property) layer disposed on said first face, and a transparent**

***electroconductive layer*** (Dt refer to page 8 paragraph [0136]) ***disposed on second said face.***

Regarding claim 4 Koike discloses in at least figure 1 and 2, ***the transparent electroconductive film according to claim 3, further comprising a surface treatment*** (F refer to page 6 on paragraph [0113]) ***for enhancing adhesion on both said first and second faces of said transparent fluorine-containing resin film*** (B).

Regarding claim 5 Koike discloses in at least figure 1 and 2, ***the transparent electroconductive film according to claim 4, further comprising a primer layer*** (F refer to page 6 on paragraph [0115]) ***on said surface-treated face of said transparent fluorine-containing resin film*** (B).

Regarding claim 9 Koike discloses in at least figure 1 and 2, ***a display device having a structure in which a display medium between transparent substrates, said display device characterized in that at least one of the transparent substrates comprises the electroconductive film according to claim 3.*** Refer to page 1 paragraph [0001] where the filter of claim 3 can be used on a PDP, LCD or the same.

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Regarding claim 10 Koike discloses in at least figure 1 and 2, ***the display device according to claim 9, characterized in that the display medium comprises liquid crystal.*** Refer to page 1 paragraph [0001].

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 6, 8, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0156080 to Koike et al..

Regarding claim 6 Koike discloses in at least figures 1 - 4, ***the transparent electroconductive film according to claim 3, characterized in having a flexural modulus of 1 to 100 kg/mm<sup>2</sup>.*** Since Koike has all of the structural features of claim 3, it would have been obvious optimize the flexural modulus through routine experimentation. See MPEP § 2144.04

Regarding claim 8 Koike discloses in at least figures 1 – 4, ***the transparent electroconductive film according to claim 3, characterized in that the moisture absorbance of said transparent, fluorine-containing resin film is 0.1% or less.***

Once again Koike has all of the structural features of claim 3, but does not explicitly state that the moisture absorbance in percentage form but he does state moisture permeability not greater than  $10 \text{ g/m}^2 \cdot \text{day}$ . Also the practitioner may optimize the moisture absorbance for this number. See MPEP § 2144.04

Regarding claim 13 Koike discloses in at least figure 1 - 4, ***the display device according to claim 9, characterized in that the display medium has electrodeposition effects whereby metal ionization/deposition is controlled in an electrolyte solution by means of a current injection, and the state of absorbance of external light changes.*** Even though Koike does not explicitly state a display device characterized as such it would have been obvious to one skilled in the art at the time of the invention to Koike conductive film on a display medium characterized in that the display medium has electrodeposition effects whereby metal ionization/deposition is controlled in an electrolyte solution by means of a current injection, and the state of absorbance of external light changes.

Claims 7, 11 are ejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0156080 to Koike as applied to claims 3 - 8 above, and further in view of US Patent 6,369,871 to Hanada et al..

Regarding claim 7 Koike discloses in at least figure 1 and 2 ***the transparent electroconductive film according to claim 3, characterized in having light transmittance of 80% or higher*** (refer to page 3 paragraph [0041]), but it fails to teach ***at a wavelength of 550 nm after heat treatment, and in having no change in appearance due to heat treatment***. Hanada teaches transparency ***at a wavelength of 550 nm after heat treatment*** (Refer to column 14 lines 16 – 18 and column 8 lines 13 - 23). Hanada gives motivation by providing a transparent conductive substrate that “**has excellent transparency, optical isotropy, chemical resistance, interlayer adhesivity and gas barrier properties, and it is extremely useful as a transparent conductive substrate which can give a liquid crystal panel resistant to the occurrence of the deterioration of display quality even after long standing in a high-temperature and high-humidity environment.**” It would have been obvious to one skilled in the art, at the time of Koike's invention to place it on Hanada LCD display.

Regarding claim 11 in at least figure 23, Koike teaches ***the display device according to claim 10***, but it fails to teach ***characterized in having a polymer structure between the substrates, for maintaining a constant spacing between the substrates***. Hanada teaches ***characterized in having a polymer structure between the substrates, for maintaining a constant spacing between the substrates*** in



figure 1 display 17 refer to column 14 lines 63 through 65. Hanada gives motivation by providing a transparent conductive substrate that **"has excellent transparency, optical isotropy, chemical resistance, interlayer adhesivity and gas barrier properties, and it is extremely useful as a transparent conductive substrate which can give a liquid crystal panel resistant to the occurrence of the deterioration of display quality even after long standing in a high-temperature and high-humidity environment."** It would have been obvious to one skilled in the art, at the time of Kioke's invention to place it on Hanada LCD display. To provide greater protection in a hostile environment.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0156080 to Koike as applied to claims 3 - 8 above, and further in view of US Patent 3,792,308 to Ota.

Regarding claim 12 Koike discloses in at least figure 1 and 2, ***The display device according to claim 9***, but it fails to teach ***characterized in that the display medium has electrophoretic effects whereby non-transparent particles are shifted or rotated as a result of the application of a voltage, and the state of absorbance of external light changes***. Ota teaches in the abstract and in at least figures 1a – 4b, a display device ***characterized in that the display medium has electrophoretic effects whereby non-transparent particles are shifted or rotated as a result of the***

***application of a voltage, and the state of absorbance of external light changes.***

Ota gives the motivation (column 1 lines 43 to 45) to provide a flexible panel for display. It would have been obvious to one skilled in the art at the time of Koike's invention to replace the electrodes 8 and 9 of Ota's invention to increase the display panels flexibility.

Claims 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0156080 to Koike as applied to claims 3 – 5, 9, 10 above, and further in view of US Patent 6,908,695 to Seo et al.

Regarding claim 14 Koike discloses in at least figure 1 - 4, ***the display device according to claim 9***, but it fails to teach ***characterized in that the display medium comprises an organic thin film or a resin film with a dispersed inorganic phosphor having electroluminescent effects whereby light is emitted as a result of a current injection or a voltage application***. Seo teaches an EL device characterized as stated prior described in column 4 lines 43 – 60. Seo gives motivation in column 2 lines 4 – 11, when he states certain characteristic, such as thin type, lightweight and direct-current low-voltage drive, make these type of Light Emitting device an object of the future. It would have been obvious to one skilled in the art at the time of Koike's invention to replace Figure 8 the substrate (810) of Seo's invention to increase the display panel thin type lightweight and direct-current low-voltage drive.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,908,695 to Seo et al., and further in view of US 2003/0156080 to Koike.

Regarding claim 15 Koike discloses in at least figure 1 - 4, display device characterized in that the transparent substrate comprises the transparent electroconductive film according to claim 3, but it fails to teach A display device having a structure in which a display medium comprising a thin film is laminated on a transparent substrate, Seo teaches an EL device in at least figure 8a and 8b A display device having a structure in which a display medium comprising a thin film (808) is laminated on a transparent substrate (810), said display device characterized in that the transparent substrate. Seo gives motivation in column 2 lines 4 – 11, when he states certain characteristic, such as thin type, lightweight and direct-current low-voltage drive, make these type of Light Emitting device an object of the future. It would have been obvious to one skilled in the art at the time of Koike's invention to replace Figure 8 the substrate (810) of Seo's invention to increase the display panel thin type lightweight and direct-current low-voltage drive.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Williams whose telephone number is (571) 270-5279. The examiner can normally be reached on Monday thru Friday 7:00 to 5:00 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Brewster can be reached on (571)272-1854. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron Williams/  
Examiner, Art Unit 4135

/William M. Brewster/  
Supervisory Patent Examiner, Art Unit 4135